2 8 JUL 1982

MEMORANDUM FOR: Director of Central Intelligence

FROM: Harry E. Fitzwater
                  Deputy Director for Administration

SUBJECT: Comparison of Original SAFE Program with
                  Proposed Approach

      In response to your request earlier this week, attached is a

brief report which compares the original SAFE program, as

modified by Audit findings, with the Software Integration

approach which we now propose to take to develop these essential

services.

                                   Harry E. Fitzwater

                           Harry E. Fitzwater

      Attachment

Distribution:
  Orig - DCI (by hand)
     1 - DDCI   "   "
     1 - EXDIR
     1 - DDI (by hand)
     1 - DD/DIA"   "
     1 - Little (DIA) (by hand)
     1 - D/ODP
     1 - D/CSPO
     1 - DDA Subj
     1 - DDA Chrono
     1 - HEF Chrono

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Comparison of SAFE Schedules and Cost

The attached Chart (Attachment A) indicates the schedule and costs for the following:

1. Original program (Major software development on Burroughs) as projected by the Consolidated SAFE Project Office (CSPO) subsequent to the Preliminary Design Review (PDR) in January 1982.

2. The projection by the SAFE Audit Team as contained in the Audit Report dated May 1982.

3. The Integrated Software option generated by the CSPO after the Audit Report was submitted to senior CIA and DIA management. This option is described in TAB A of the SAFE status report submitted to the DCI and Director, DIA, on 27 July 1982.

The original direction prescribed for SAFE in the 1979 DCI guidance indicated a program costing $75 million for FY 80-84 (adjusted for inflation to $94 million) and a delivery schedule of December 1982 for CIA and December 1983 for DIA. As a result of the Preliminary Design Review on the initial CIA delivery completed in January 1982, the CSPO believed   STAT
significantly behind schedule and overrun in cost. Projections at that time were that the program would cost $157 million to complete and provide CIA an initial delivery in fourth quarter CY 1983 (approximately one year slip from original dates). CIA deliveries would be completed in fourth quarter CY 1984. The initial DIA delivery would also have been in 4th quarter CY 1984 with final delivery in first quarter CY 1985.

As indicated in the Audit Report and further reported in TAB A of the 27 July 1982 SAFE Status Report, the Audit Team found serious technical and management difficulties with the SAFE development and projected that if the program were to continue on its current course it would cost at least $200 million to complete, with initial CIA delivery not available until second quarter 1985. DIA delivery would slip to mid CY 1986 (approximately a two year slip from original DCI dates).

The Audit findings resulted in the CSPO being directed to identify an option which could reduce the risk, provide early capability for both agencies, ensure more effective management and provide a mechanism for containing cost. The option recommended by the CSPO is shown at the bottom of the attached chart (below hashed line).

The CSPO option is an integrated software approach which maximizes the use of off-the-shelf software in an IBM-compatible environment. This approach utilizes packages which are available

in CIA and the marketplace. It reduces the risk of software
development by accepting software already developed and assumes
risk for integrating software packages into a SAFE system
design. It also provides the advantage for meeting future
requirements with flexibility available through a great variety
of software packages in the IBM-compatible software marketplace,
and it provides an early capability beginning in 1983. The cost
to complete the integrated software approach is $135-150 million,
not including approximately $50 million in costs already
incurred.

Attachment B is a chart displaying the delivered
capabilities and cost accumulation. The integrated software
approach (IBM-compatible) provides early capability (EC-1) for
CIA in March 1983 and for DIA in May 1983. The initial delivery
of an integrated capability for CIA and DIA (IC-1) occurs in
fourth quarter 1984, and there are integrated capability
deliveries for both agencies in the fourth quarters of CY 1985
and CY 1986 with final integrated capability available for CIA
and DIA in the fourth quarter of 1987.

The original SAFE program, on the schedule projected by the
Audit, would have delivered in FY 85 to 460 CIA users (230
concurrent) the same services which are projected for that year
in attachment B. Service to DIA, and conversion of DIA's
targeting, order of battle and crisis management files would not
be available until 1986. What would be totally lacking, of
course, would be the early capabilities (EC-1 and EC-2) which the
new approach will be able to deliver to both agencies in FY 83
and 84.

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COMPARISON OF SAFE DEVELOPMENT APPROACHES

CALENDAR YEARS	1982	1983	1984	1985	1986	1987	PROJECTED COST
ORIGINAL PROGRAM CSPO PROJECTED ON BURROUGHS		▲ INITIAL CIA DELIVERY	▲ INITIAL DIA DELIVERY CIA IOC	▲ DIA IOC			$157 million
AUDIT SCHEDULE PROJECTION				▲ INITIAL CIA DELIVERY	▲ INITIAL DIA DELIVERY CIA IOC	DIA IOC ▲	$200 million
REDIRECTED PROGRAM CSPO OPTION:							
INTEGRATED APPROACH (IBM Compatible)		▲ ▲ CIA DIA EARLY CAPABILITY		▲ CIA/DIA INTEGRATED CAPABILITY INITIAL DELIVERY		▲ CIA/DIA INTEGRATED CAPABILITY FINAL DELIVERY	$135 - 150 million

SAFE FUNCTIONAL CAPABILITY/FUNDING PROFILE FY-83 THRU FY-87

FY-83 (EC-1)	FY-84 (EC-2)	FY-85 (IC-1)
• USE EXISTING SOFTWARE TO PROVIDE: — MAIL DISSEM — ROUTE — PRIVATE INDEX FILES — SAVE FILES	• INTEGRATE S/W AND ENHANCE: — TEXT PROCESSING — ON-LINE TEXT SEARCH — MAIL DISSEM — INTRODUCE SUL	• ENHANCEMENTS: — MAIL ANALYSIS — INTEGRATED USER INTERFACE — INVERTED INDEX SEARCH — INVERTED TEXT SEARCH
• EXPAND CIA PMO USERS TO 300/150 CONCURRENT	• EXPAND USERS TO 500/250 CONCURRENT	
• PROVIDE DIA MAIL TESTBED	• PROVIDE ENHANCEMENTS DIAC	
• EVALUATE/SELECT SAFE-D DBMS('S) AND BEGIN AUGMENTATION	• BEGIN CONVERSION	• CONVERT — TARGETING — ORDER OF BATTLE — CRISIS MGMT — CENTRAL INDEX

	FY-83 (EC-1)	FY-84 (EC-2)	FY-85 (IC-1)
COST	33	30-37	31-36
CUM COST		63-70	94-108

SAFE FUNCTIONAL CAPABILITY/FUNDING PROFILE (CONT.)
FY-83 THRU FY-87

	FY-86 (IC-2)	FY-87 (IC-3, 4)
	• ENHANCEMENTS: — COMBINED INDEX/TEXT FILE SEARCH — FULL SUL • EXPAND USERS TO 1000/500 CONCURRENT	• ENHANCEMENTS: — TOTAL SAFE FUNCTIONALITY • CONVERT: — COLLECTION MGMT — LIBRARY REFERENCE
COST	24-27	17
CUM COST	118-133	135-150